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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. | | |
|-----------------|-----------------------------------|----------------------|---------------------|------------------|--|--|
| 10/578,654 | 05/09/2006 | Maxim Fradkin | FR030141US1 | 1782 | | |
| | 7590 03/05/200 LLECTUAL PROPER | EXAMINER | | | | |
| P.O. BOX 3001 | | KOZIOL, STEPHEN R | | | | |
| BRIARCLIFF I | MANOR, NY 10510 | | ART UNIT | PAPER NUMBER | | |
| | | | 2624 | | | |
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| | | MAIL DATE | DELIVERY MODE | | | |
| | | | 03/05/2009 | PAPER | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| Office Action Summany | | Application No. | | Applicant(s) | | | | | |
|--|---|----------------------|-------------|--|--------------------|-------------|--|--|--|
| | | 10/578,654 | ļ | FRADKIN ET AL. | | | | | |
| Office Action Summary | | | Examiner | | Art Unit | | | | |
| | | | STEPHEN | R. KOZIOL | 2624 | | | | |
| Period fo | The MAILING DATE of this commur or Reply | nication appe | ears on the | cover sheet with the d | correspondence ac | ldress | | | |
| A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b). | | | | | | | | | |
| Status | | | | | | | | | |
| 1) 又 | Responsive to communication(s) file | ed on <i>12/18</i> . | /2008 | | | | | | |
| · · · | Responsive to communication(s) filed on <u>12/18/2008</u> . This action is FINAL . 2b) This action is non-final. | | | | | | | | |
| 3) | | <i>,</i> — | | | secution as to the | e merits is | | | |
| ٥/ك | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. | | | | | | | | |
| | · | | n parto que | y,e, 1000 C.D. 11, 10 | 30 0.0. 210. | | | | |
| · - | on of Claims | | | | | | | | |
| • | Claim(s) <u>1-14</u> is/are pending in the application. | | | | | | | | |
| | 4a) Of the above claim(s) is/are withdrawn from consideration. | | | | | | | | |
| 5) | S) Claim(s) is/are allowed. | | | | | | | | |
| 6)⊠ | S)⊠ Claim(s) <u>1 -14</u> is/are rejected. | | | | | | | | |
| 7)🛛 | Claim(s) is/are objected to. | | | | | | | | |
| 8)□ | Claim(s) are subject to restrict | ction and/or | election re | quirement. | | | | | |
| Applicati | on Papers | | | | | | | | |
| 9)□ | The specification is objected to by th | ne Examiner | • | | | | | | |
| • | | | | or b) objected to | by the Examiner. | | | | |
| /— | 10)☑ The drawing(s) filed on <u>09 May 2006</u> is/are: a)☑ accepted or b)☐ objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a). | | | | | | | | |
| | Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d). | | | | | | | | |
| 11) | 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. | | | | | | | | |
| Priority ι | ınder 35 U.S.C. § 119 | | | | | | | | |
| 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) All b) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. | | | | | | | | | |
| 2) Notic 3) Inform | t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (I nation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date | | | 4) Interview Summary Paper No(s)/Mail Do 5) Notice of Informal F 6) Other: | ate | | | | |

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Detailed Action

1. Applicants' amendments and remarks filed 12/18/2008 have been entered and considered. Each of Claims 1-14 has been amended, while claim 15 has been cancelled. Claim 1-14 remain. New grounds of rejection are set forth herein; accordingly, this action is made non-final.

Response to Applicants' Remarks

2. Applicants' amendments filed 12/18/2008 are sufficient to overcome the previously outstanding 35 U.S.C. § 101 rejection as set forth in the 09/18/2008 non-final Office action.

Applicants' amendments filed 12/18/2008 are sufficient to overcome the previously outstanding 35 U.S.C. § 112 first and second paragraph rejections as set forth in the 09/18/2008 non-final Office action.

Applicants' revised Abstract filed 12/18/2008 is sufficient to overcome the previously outstanding objections as set forth in the 09/18/2008 non-final Office action.

Claim Rejections - 35 USC § 112

- 3. The following is a quotation of the second paragraph of 35 U.S.C. 112:
 The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 4. Claims 1 and 12 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Amended Claim 1 recites the limitation of a "user-selected orientation with respect to said surface, *which is appropriate* for the user to visualize a 2D portion..." (emphasis added). It

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is unclear what criteria are used to determine whether or not user-selected orientation is "appropriate" for visualization, as claimed in claim 1. This lack of clarity and precision introduces ambiguity into the claim and invites rejection under 35 U.S.C. § 112, second paragraph for being indefinite.

One possible way to overcome the instant 35 U.S.C. § 112, second paragraph rejection of claim 1 set forth herein may be to amend claim 1 to recite "a user-selected orientation with respect to said surface, which is appropriate for enables the user to visualize a 2D portion..." or the like.

Dependent claim 12 is also rejected under 35 U.S.C. § 112, second paragraph because claim 12 recites "3D <u>and/or</u> 2D views" (emphasis added). A claim reciting a limitation in an "and/or" format is presently viewed as indefinite because the limitations imposed by "and/or" are unclear. For example, "and/or" may be fairly interpreted as meaning one or more of: "and," "or," "and or, or (i.e. an exclusive or)." Therefore, "and/or" as presently recited in claim 12 renders claim 12 indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Dependent claims 2-11, 13 and 14 are objected to for their dependence on a rejected base claims.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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6. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. By way of the amendments filed 12/18/2008, claim 1 presently recites "A computer program product having program code encoded in a *computer readable medium*..." (emphasis added). However, the originally-filed Specification (05/09/2006) does not provide support for a "computer readable medium" as claimed in claim 1. The specification does not support encoding the program code on a "computer readable medium" as presently recited. Hence, claim 1 is rejected for reciting new matter in the form of a "computer readable medium" which is not supported by the original specification.

Allowable Subject Matter

- 7. Claims 1-14 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. § 112, first and second paragraph, set forth in this Office action.
- 8. The following is a statement regarding the indication of allowable subject matter: The prior art of record fails to fairly teach or suggest the limitations of: <u>automatic</u> mapping a 3-D Surface Model onto the surface of an object of interest in a 3-D image, for estimating a model-based 3-D segmentation surface, comprising visualizing means (60) and further comprising: means of interactive adaptation (20) of the segmentation surface to the actual surface of the object of interest including: means of interactive selection (40) of a 2D data plane (DP) that intersects the 3-D segmentation surface along a 2-D Model Curve (MC), and means of further

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<u>automatically adapting</u> the 3D segmentation surface within a neighborhood of the interactively adapted Aberrant Curve (emphasis added). It is the <u>automated nature</u> of the present claimed invention combined with use of the Aberrant Curve of the Model Curve that helps distinguish over the cited prior art of record.

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Conclusion

9. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Steve Koziol whose telephone number is (571) 270-1844. The

examiner can normally be reached on Monday - Friday 9:00 - 5:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor,

Samir Ahmed can be reached at (571) 272-7413. Customer Service can be reached at (571)

272-2600. The fax number for the organization where this application or proceeding is assigned

is (571) 273-7332.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

02/27/2009

/srk/

/Samir A. Ahmed/

Supervisory Patent Examiner, Art Unit 2624